

Work Order ID 133315

Tuesday, June 02, 2015 3:22:27 PM

133315

June 19

Ship ASAP Page 1

Item ID: D412-702-023 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Shoulder Harness,4 Point Attachment,5 Man Fwd Facing
Start Date: 6/2/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/12/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: ME Date: 15-6-2 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
N/A	Rev E								
100	Document Control	0.00			DAS				DAS
100	DOCUMENT CONTROL				6				02
DC	Memo <u>M.H.</u>	0.00			9-89				9-89
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D412-702-023 CHG003								JUN 09 2015
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00			DAS				DAS
120					6				02
QC	Memo	0.00			9-89				9-89
Quality Control									

MLJ 1506-04

1X DAS 28 JUN 03 2015
9-89 DAS 20 9-89

JUN 09 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
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Work Order ID 133315

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Page 2

Item ID: D412-702-023

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Shoulder Harness, 4 Point Attachment, 5 Man Fwd Facing

Start Date: 6/2/2015 Start Qty: 1.00 ***1***

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Required Date: 6/12/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

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Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Packaging

Packaging

Memo

0.00

Identify and pack for shipping as per PPP D412-702-023

Location: 029DAS
6
9-89

JUN 10 2015

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

ML5

JUN 11 2015

ML5

JUN 10 2015

DQA: _____ Date: _____



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Description Work Order Deviation		Disposition		Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

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133315

D412-702-023

Required Qty: 1.00

Comments:	IPP Rev:B	Removed Manufacturing	05-11-08	JLM	
	IPP Rev:C06.04.03As per	DSI9324		JLM	
	IPP rev D	06.12.14	per ecn 871	EC	
	IPP Rev:E	07-03-14	As per DSI 9351	JLM	IPP
	Rev.F	11.05.31	DSI 9559	EC verified by: JLM	

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-13A		Purchased	No			120	Each	459.0000	4	4			
AN4-13A Bolt DAS 02 9-89 Location FG 122808 ST325A m131957 m132317 ST344 131677 Loc Qty 20 20 415 200 215 24 24 Loc Code DAS 28 9-89 JUN 03 2015 DAS 28 9-89													
D3195-041		Manufactured	No			120	Each	4.0000	2	2			
D3195-041 Bracket DAS 02 9-89 Location ST025 118941 Loc Qty 4 4 Loc Code DAS 28 9-89 DAS 28 9-89													
D3195-043		Manufactured	No			120	Each	5.0000	2	2			
D3195-043 Bracket DAS 02 9-89 Location ST025 118939 Loc Qty 5 5 Loc Code DAS 28 9-89 DAS 28 9-89													

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OTHER : _____					

Picklist Print

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Work Order ID: 133315

133315

Parent Item: D412-702-023

D412-702-023

Parent Item Name: Shoulder Harness,4 Point Attachment,5 Man Fwd Facing

Start Date: 6/2/2015

Required Date: 6/12/2015

Start Qty: 1.00

Required Qty: 1.00

D3196-1	Manufactured	No	120	Each	4.0000	1	1	DAS 28 9-89	JUN 03 2015
D3196-1									
Bar									
DAS 02 9-89									
	<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>				
	ST256		4						
	119624		4						
D3197-041	Manufactured	No	120	Each	2.0000	2	2	DAS 28 9-89	
D3197-041									
Bar									
DAS 02 9-89									
	<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>				
	ST256		2						
	131617		2						
D3268-1	Manufactured	No	120	Each	15.0000	2	2	DAS 28 9-89	
D3268-1									
Placard									
DAS 02 9-89									
	<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>				
	ST032		15						
	127993		3						
	132242		12						
D3546-1	Manufactured	No	120	Each	12.0000	2	2	DAS 28 9-89	
D3546-1									
Clip									
DAS 02 9-89									
	<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>				
	ST049		2						
	105378		2						
	ST051A		10						
	127598		10						

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Work Order ID: 133315

133315

Parent Item: D412-702-023

D412-702-023

Parent Item Name: Shoulder Harness,4 Point Attachment,5 Man Fwd Facing

Start Date: 6/2/2015

Required Date: 6/12/2015

Start Qty: 1.00

Required Qty: 1.00

D3551-11 Manufactured No

120 Each 47.0000 5 5

D3551-11

Hook And Loop Tie

DAS
28
9-89

JUN 03 2015
26
9-89

DAS
02
9-89 ✓

Location

Loc Qty

Loc Code

ST416

47

120143

5

121427

42

5

D412-702-069 Manufactured No

120 Each 18.0000 1 1

D412-702-069

Grommet

DAS
28
9-89

DAS
26
9-89

DAS
02
9-89 ✓

Location

Loc Qty

Loc Code

PKg015a

18

118834

7

121269

11

1

D4387-041 Manufactured No

120 Each 15.0000 5 5

D4387-041

Harness Assy

DAS
28
9-89

DAS
26
9-89

DAS
02
9-89 ✓

Location

Loc Qty

Loc Code

ST467

15

121404

15

5

MS24694-S152 Purchased No

120 Each 36.0000 2 2

MS24694-S152

Screw

DAS
28
9-89

DAS
26
9-89

DAS
02
9-89 ✓

Location

Loc Qty

Loc Code

ST287

36

m130238

36

2

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Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order ID: 133315

133315

Parent Item: D412-702-023

D412-702-023

Parent Item Name: Shoulder Harness,4 Point Attachment,5 Man Fwd Facing

Start Date: 6/2/2015

Required Date: 6/12/2015

Start Qty: 1.00

Required Qty: 1.00

MS24694-S154

Purchased

No

120

Each

61.0000

2

2

MS24694-S154

DAS
28
9-89

JUN 03 2015

Screw
DAS
02
9-89

Location

Loc Qty

Loc Code

ST287

61

m129198

11

m131618

50

2

DAS
26
9-89

DQA: _____ Date: _____



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QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
X						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
	X					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		X				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
			X			D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4-point
				X		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
1	1		1	1		D412-702-069	GROMMET KIT
2	2					D3195-041	BRACKET
2	2					D3195-043	BRACKET
1	1			1		D3196-1	BAR
1			1			D3196-3	BAR
1			1			D3196-4	BAR
2	2					D3197-041	BAR
4		4				D3198-1	FITTING
2	2					D3268-1	PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
2	2					D3546-1	CLIP
4		4				AN4-5A	BOLT
4	4					AN4-13A	BOLT
8		8				AN4-20A	BOLT
20		20				AN960JD416	WASHER (OR NAS1149D0463J)
12		12				MS21042L4	NUT (OR MS21042-4)
8	2		6	2		MS24694-S152	SCREW
8	2		6	2		MS24694-S154	SCREW

QTY -069	Part Number	Description
X	D412-702-069	GROMMET KIT
24	D3619-2	GROMMET
1	D3619-2T1	HOLE PUNCH
1	D3619-2T2	STRIKER BLOCK
1	D3619-2T3	PUNCH
1	D3619-2T4	DIE

DART SERVICE INSTRUCTION

TO AMEND IIN-D412-702-1 REV. A,
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS
REF. TCCA STC: SH04-7
REF. FAA STC: SR01997NY
REF. EASA STC: EASA.IM.R.S.00710

PURPOSE

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

CHANGE

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

Old Harness P/N	Used On	New Harness P/N	Effectivity
D3446-041	D412-702-021	D4387-041	CHG 003 and subsequent
	D412-702-023		CHG 002 and subsequent
	D412-702-027		CHG 002 and subsequent
	D412-702-029		CHG 002 and subsequent
D3446-043	D412-702-021	D4387-043	CHG 003 and subsequent
	D412-702-025		CHG 002 and subsequent

Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 11.05.09
CERT. NO.: SH04-7
ISSUE NO.: 3

A	NEW ISSUE	MB	11.05.09
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9559	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		HARNESS CHANGE	NTS
DATE	11.05.09	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	